# 2018 Summary Report to Members

for the fiscal year ended June 30, 2018

Education for Today,
Retirement for Tomorrow

Missouri Public Schools and PSRS/PEERS

BEULAH RALPH ELEMENTARY SCHOOL







PUBLIC SCHOOL & EDUCATION EMPLOYEE RETIREMENT SYSTEMS OF MISSOURI





# Table of Contents

EDUCATION FOR TODAY, RETIREMENT FOR TOMORROW	2
MEMBERSHIP	5
A Snapshot of PSRS/PEERS Members	
PSRS Active Member Profile	
PEERS Active Member Profile	
PSRS Total Membership	
PEERS Total Membership	
About our Retirees	
PSRS 2017-2018 School Year Retirees.	
PEERS 2017-2018 School Year Retirees	7
Retirees and the Economic Impact of Benefits	8
Retirement Trends	9
PSRS Members Retiring By Year	9
PEERS Members Retiring By Year	9
Total PSRS Benefits Paid Over Time	9
Total PEERS Benefits Paid Over Time	9
FUNDING	10
Funding Status and Valuation Results	11
PSRS Pre-Funded Percentage	12
PEERS Pre-Funded Percentage	12
Funding Sources	12
INVESTMENTS	13
Investment Performance	14
Growth in Assets	14
Plan Performance	15
Asset Allocation	16
Total Fund Asset Allocation	16
Top 10 Stock Holdings	17
U.S. Public Equity - Top 10 Holdings	17
Non-U.S. Public Equity - Top 10 Holdings	17
FINANCIALS	18
Fiscal Year 2018 Expenses	19
Financial Statements.	
Statements of Fiduciary Net Position	20
Statements of Changes in Fiduciary Net Position	20
SUMMARY	21

# MEMBERSHIP



# A Snapshot of PSRS/PEERS Members

PSRS/PEERS has helped more than 131,000 members and their families achieve financial security during retirement. We are dedicated to helping our current and future members achieve the financially secure retirement they deserve after a full career of service to Missouri's public schools and students.

While the average age and years of service among our working members have remained fairly constant over the past five years, average annual salaries have increased moderately, and total PSRS and PEERS membership continues to grow. As our membership grows, we remain dedicated to maintaining our financial strength and providing the highest level of service and retirement security to all of our members, now and in the future.

PSRS Active Member Profile						
	2018	2017	2016	2015	2014	
Average Age	42.1	42.0	42.0	42.0	42.2	
Average Years of Service	11.8	11.7	11.6	11.5	11.8	
Average Annual Salary	\$61,634	\$60,643	\$59,005	\$58,582	\$58,876	

PEERS Active Member Profile						
	2018	2017	2016	2015	2014	
Average Age	48.2	48.3	48.3	48.4	48.6	
Average Years of Service	8.4	8.5	8.6	8.6	8.9	
Average Annual Salary	\$34,361	\$33,643	\$32,887	\$32,220	\$31,646	

PSRS Total Membership						
	2018*	2017*	2016*	2015*	2014	
Active	78,700	78,274	78,129	78,318	75,168	
Inactive	17,524	16,756	16,376	16,260	14,451	
Retired	55,930	54,629	53,069	51,345	49,707	
Disabled	991	981	957	892	859	
Survivors	4,374	4,162	3,994	3,884	3,920	
Total Membership	157,519	154,802	152,525	150,699	144,105	

PEERS Total Membership						
	2018*	2017*	2016*	2015*	2014	
Active	48,549	47,953	47,851	46,864	45,589	
Inactive	35,409	33,152	31,577	30,999	16,215	
Retired	27,575	26,335	25,061	23,900	22,756	
Disabled	813	804	782	767	735	
Survivors	1,972	1,863	1,740	1,631	1,538	
Total Membership	114,318	110,107	107,011	104,161	86,833	

<sup>\*</sup>Inactive members includes vested and non-vested accounts, as well as terminated accounts.

### **About Our Retirees**

We take great pride in the long-term strength and stability of the Systems. We believe our retired members, after a full career of service to our schools, students and communities, are deserving of the peace of mind that comes with knowing they will receive lifetime retirement benefits.

Most PSRS/PEERS benefit recipients are service retirees. Lifetime service retirement benefits are payable to members who have met age and service requirements. Disability benefits are provided for members who are unable to earn a livelihood due to permanent disability and who have met eligibility criteria. The Systems also provide death benefits to qualified beneficiaries of deceased members.

PSRS 2017-2018 School Year\* Retirees

Years of Service at Retirement	Number of Retirees	Average Years of Service	Average Single Life Monthly Benefit	Average Age at Retirement
5 - 9.9	228	6.9	\$ 708	61.4
10 - 14.9	263	12.3	\$ 1,361	62.2
15 - 19.9	301	17.4	\$ 2,161	62.3
20 - 24.9	486	22.4	\$ 3,124	60.7
25 - 29.9	712	27.3	\$4,357	55.7
30 - 34.9	371	31.1	\$5,374	56.5
35 - 39.9	35	37.0	\$6,871	62.7
40+	10	41.8	\$7,111	66.7
Overall Average		22.3	\$3,365	59.1

#### PEERS 2017-2018 School Year\* Retirees

Years of Service at Retirement	Number of Retirees	Average Years of Service	Average Single Life Monthly Benefit	Average Age at Retirement
5 - 9.9	557	7.2	\$ 244	63.3
10 - 14.9	389	12.2	\$ 510	64.0
15 - 19.9	348	17.4	\$ 830	63.5
20 - 24.9	410	22.2	\$ 1,171	61.5
25 - 29.9	196	27.1	\$ 1,787	60.4
30+	125	33.6	\$ 2,365	61.4
Overall Average		16.5	\$ 864	62.7

<sup>\*</sup> A school year runs July 1 to June 30.

The average 2017-2018 single life monthly benefit for new PSRS retirees is \$3,365 and for PEERS retirees is \$864. How much will your benefit be? Use our online Benefit Estimator located under Web Member Services at **www.psrs-peers.org** to estimate your own monthly retirement benefit amount.

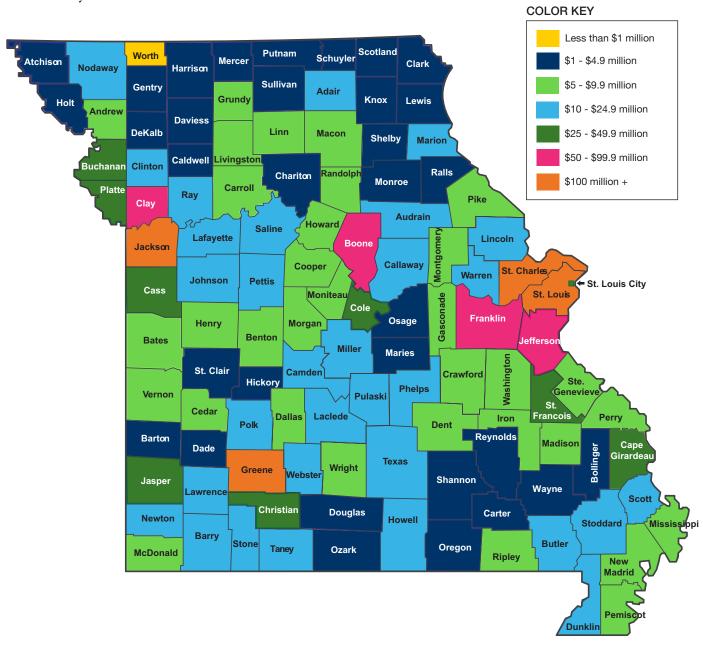
# Retirees and the Economic Impact of Benefits

The benefits distributed to our retirees make a sizable contribution to Missouri's economy.

In fiscal year 2018, PSRS/PEERS paid more than \$2.8 billion in retirement benefits to more than 91,000 retirees and beneficiaries. Of this amount, more than \$2.5 billion, or 89% was paid to Missouri residents. These benefits serve not only as a reliable source of income for those retirees and beneficiaries, but also fuel the local economies in which the retirees live.

Pension benefits received by our retirees are often spent in their local communities. As one person's spending becomes another person's income, the funds begin to ripple through the economy. In this way, the expenditure and sales tax revenue our retired members generate stimulate the growth of Missouri's economy.

If you look at it in terms of providing paychecks for Missourians, PSRS/PEERS would qualify as one of the state's largest employers. We have a positive impact on every county in the state, regardless of swings in the economy.

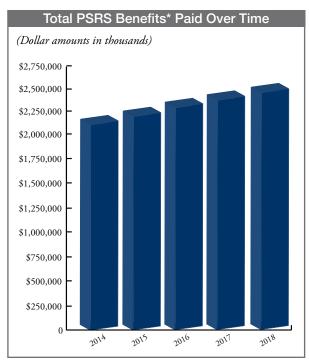


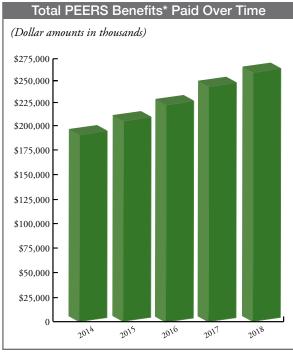
### **Retirement Trends**

The total number of PSRS/PEERS retirees and amount of benefits paid each year continue to grow. In fiscal year 2018 (July 1, 2017 to June 30, 2018) we helped 4,431 individuals begin their retirement by providing them with PSRS/PEERS benefits.

PSRS Members Retiring By Year								
	2018	2017	2016	2015	2014			
Number of Retirements	2,406	2,601	2,603	2,570	2,888			
Average Age	59.1	59.0	59.1	59.3	58.8			
Average Years of Service	22.3	22.5	22.3	22.3	23.5			
Average Monthly Benefit	\$3,365	\$3,359	\$3,239	\$3,230	\$3,445			

PEERS Members Retiring By Year							
	2018	2017	2016	2015	2014		
Number of Retirements	2,025	2,023	1,903	1,884	1,919		
Average Age	62.7	62.8	62.9	63.1	63.0		
Average Years of Service	16.5	16.5	16.5	16.3	16.1		
Average Monthly Benefit	\$864	\$844	\$826	\$813	\$793		





<sup>\*</sup>Annual benefits paid to service retirees, disability retirees, and survivors. Includes PLSO Payments.

# FUNDING



### Funding Status and Valuation Results

The PSRS/PEERS Board of Trustees and staff take great pride in serving Missouri's public school educators and staff by helping to provide them with a secure financial future. As part of that service, the Board evaluates a large amount of information each year including, but not limited to, the annual actuarial evaluations prepared by the Systems' external actuaries, PricewaterhouseCoopers, LLC.

The Board of Trustees amended the Systems' Actuarial Funding Policies at their October 29, 2018 meeting by reducing the assumed rate of return on investments from 7.6% to 7.5% effective with the June 30, 2018 actuarial valuations. All Funding Policy amendments are based on two critical elements that are at the forefront of all the Systems' decisions: the Board of Trustees' fiduciary responsibility and their funding goals.

Fiduciary responsibility includes the duties of loyalty and impartiality. The duty of loyalty requires the operation of the Systems for the exclusive benefit of the members and retirees of those Systems, and must supersede the interests of all other parties. The duty of impartiality requires that the Board not favor any one type of plan participant over another (e.g. active, inactive, retired members). The Board has a fiduciary duty to: 1. Effectively collect contributions, 2. Prudently invest the assets to obtain optimum returns, 3. Equitably provide benefits, 4. Impartially and in accordance with applicable law, administer the benefit program, and 5. Set contribution rates that are adequate to fund promised benefits.

The Board of Trustees' funding goals are:

Provide
for the security
and financial stability
of the Systems, including
maintaining at least an 80%
pre-funded ratio, continuing to
amortize the unfunded liability
until PSRS/PEERS is 100%
pre-funded, and allowing for a
reasonable assumed rate
of return given capital
market estimates

Maintain the contribution rates of both Systems at or below current levels

Provide a
consistent COLA for
PSRS/PEERS benefit
recipients to maintain their
purchasing power, noting
COLAs should be dependable
and affordable without
harming the financial
stability of the
Systems

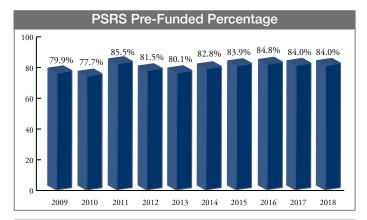
The Systems' funding objective continues to be the achievement of a funded ratio of 100% over a closed 30-year period. For this purpose, funded ratio is defined as the actuarial value of assets divided by the actuarial accrued liability determined under the entry age normal cost method and the actuarial assumptions adopted by the Board of Trustees.

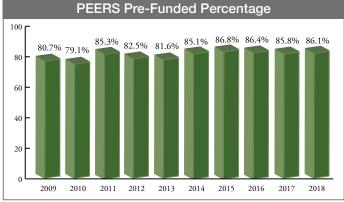
As of June 30, 2018, PSRS was 84.0% pre-funded, while PEERS was 86.1% pre-funded. The PSRS pre-funded status did not change from the System's June 30, 2017 funded percentage, and the PEERS pre-funded status increased slightly from the System's June 30, 2017 pre-funded status of 85.8%. The funded status of both plans remained relatively unchanged due to the investment return assumption being lowered and favorable investment experience.

Additional information on actuarial assumptions and funding can be found in the actuarial section of the *Comprehensive Annual Financial Report*. Based upon the June 30, 2018 valuations and overall financial projections, the Board of Trustees set the fiscal year 2020 contribution rates at the fiscal year 2019 level for both members and employers.

11

### **Funding Sources**





Actuarial value of assets as a percentage of actuarial accrued liabilities

Missouri law requires the Systems to maintain a funding level that covers current and anticipated future benefit promises. This guarantees availability of funds to pay benefits as prescribed by law.

The pre-funded status of both systems has remained relatively stable over the last 10 years.

#### **MEMBERS**

While working, members contribute a percentage of salary to PSRS and PEERS to help fund benefits. The contribution rate is set each year by the PSRS/PEERS Board of Trustees, based on the recommendation of the Systems' actuary after the annual actuarial valuation is complete.

#### **EMPLOYERS**

Employers contribute an equal amount. All employer contributions are used solely to fund benefits for retirees and beneficiaries of deceased members.

#### INVESTMENT

Investment earnings account for the majority of the assets needed to fund benefits. The investment portfolios of PSRS and PEERS represent all contributions to the plans, from members and their employers, as well as all net earnings on these assets.

These funds are held in support of current and future liabilities.

Over the last 20 years, approximately 60¢ of every dollar used to pay retirees is generated from investment earnings.

20-Year Average



Note: The 21¢ includes member contributions and service purchases.

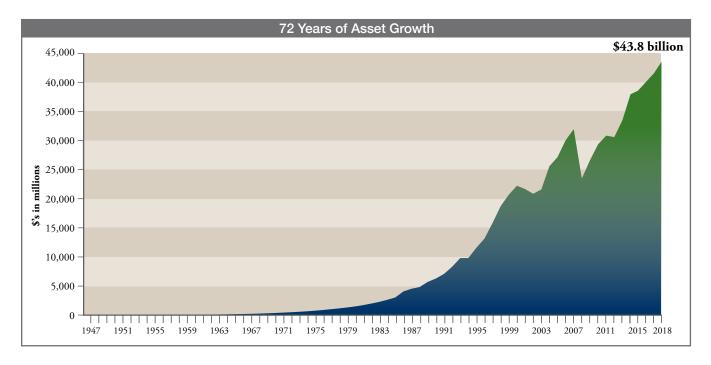
# **INVESTMENTS**



### **Investment Performance**

Prudent and cost-efficient management of investments is a major tenant of the PSRS/PEERS investment program. Our investment staff has produced consistent and stable investment returns over long periods of time that exceed the actuarial assumed rate of return.

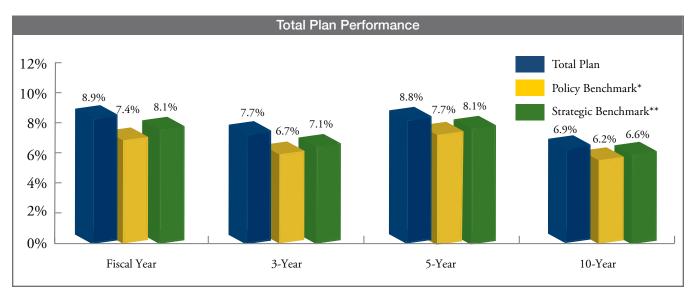
The Systems' total invested assets were \$43.8 billion as of June 30, 2018. There has been a long-term growth in assets since the inception of PSRS in 1946 and PEERS in 1965, as shown in the graph below.



### Plan Performance

In fiscal year 2018, the combined asset allocation provided the Systems with strong absolute and relative returns. The Systems' well-structured investment portfolio added approximately \$3.6 billion in investment earnings to the growth of assets during fiscal year 2018. The Systems earned an investment return of 8.9% for fiscal year 2018 (8.7% net of all investment expenses and fees) with an ending market value of invested assets at \$43.8 billion. The total plan return, net of all investment expenses and fees exceeded both the long-term investment goal (actuarial required rate of return) of 7.6% and the total plan policy benchmark return of 7.4%. PSRS and PEERS are long-term investors with a diversified portfolio that continues to produce strong long-term returns where the annualized investment return is 8.5% (8.4% net of all investment expenses and fees) over the last 30 years.

Within the Systems' investment portfolio, U.S. equities delivered a return of 14.1%, non-U.S. equities returned 8.3%, private equity (investments in private companies) increased 19.4%, real estate produced 9.2% returns, and hedged assets returned 6.3%. Each of these asset classes strongly contributed to the total returns of the Systems while providing diversification from fixed income securities.



\*As of June 30, 2018: 39.0% Russell 3000 Index, 16.5% MSCI ACWI ex-USA net Index, 16% Bloomberg Barclays U.S. Treasury Index, 15% Bloomberg Barclays U.S. Intermediate Credit Index, 7.5% NFI-ODCE, 4% Bloomberg Barclays U.S. TIPS 1-10 Years Index, and 2% ICE BofAML U.S. High Yield Master II Index.

15

<sup>\*\*</sup>As of June 30, 2018: 41.7% Russell 3000 Index, 20.3% MSCI ACWI ex-USA net Index, 12.2% Bloomberg Barclays U.S. Treasury Index, 11.3% Bloomberg Barclays U.S. Intermediate Credit Index, 7.4% NFI-ODCE, 3.2% Merrill Lynch 3- Month U.S. Treasury Bill Index, 3.1% Bloomberg Barclays U.S. TIPS 1-10 Years Index, and 0.8% ICE BofAML U.S. High Yield Master II Index. The Total Plan Strategic Benchmark changes monthly based on the actual asset allocation at the end of the previous month.

### **Asset Allocation**

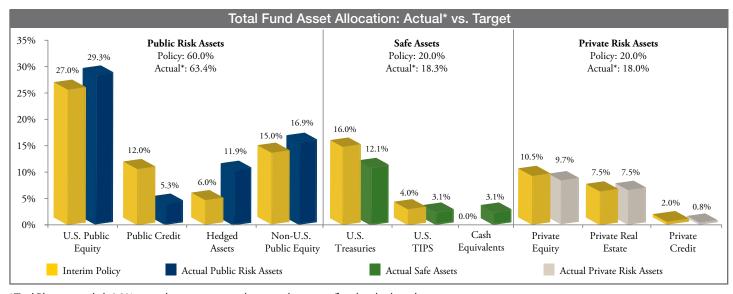
The internal investment staff, under the direction of the PSRS/PEERS Board of Trustees, has adopted a disciplined and diversified investment portfolio that includes allocations to multiple asset classes. Over time, every specific asset class within the PSRS/PEERS' investment portfolio performs a valuable function.

The Board amended the long-term asset allocation at the June 2016 Board of Trustees meeting. The allocation to each investment program considers risk tolerance of the Systems and the long-term return objective. The long-term target asset allocation is expected to maintain similar levels of total portfolio risk, while allowing for more efficient investment returns. Implementation of the changes will be achieved over a number of years through a disciplined investment approach. The changes to the asset allocation are as follows: Public Risk Assets decreased 5% and Private Risk Assets increased 5%. Within Public Risk Assets, Public Credit decreased from 12% to 7%. Within Private Risk Assets, Private Equity increased from 10.5% to 12%, Real Estate increased from 7.5% to 9% and Private Credit increased from 2% to 4%.

For fiscal year 2018, the interim policy allocation was 60% Public Risk Assets, 20% Safe Assets and 20% Private Risk Assets. The interim policy allocations have been established to reflect meaningful progress towards the new long-term targets. Within each broad policy target, the Board has established sub-asset-class targets. For example, as the chart below indicates, the target allocation to U.S. Public Equity was 27% as of June 30, 2018.

Internal staff utilized the flexibility built into the investment policy to strategically overweight or underweight certain asset classes throughout the year. Strategic decisions within the Public Risk Assets program included an overweight to U.S. equities and Non-U.S. equities, which provided meaningful returns to the Systems in fiscal year 2018.

The Systems' asset allocation as of fiscal year-end, was as follows:



<sup>\*</sup>Total Plan assets include 0.3% invested in an operating cash account that is not reflected in the chart above.

# Top 10 Stock Holdings

The top 10 U.S. stock holdings as of June 30, 2018 are shown in the table below.

U.S. Public Equity - Top 10 Holdings							
Top 10 Largest Holdings* June 30, 2018		Fair Value	% of Total U.S. Public Equity				
Amazon.com, Inc.	\$	141,792,217	1.1%				
Facebook, Inc.		94,407,652	0.7%				
Alphabet, Inc.		92,187,029	0.7%				
Bank of America Corp.		84,116,761	0.7%				
Exxon Mobile Corp.		75,747,919	0.6%				
Microsoft Corp.		75,284,100	0.6%				
Johnson & Johnson		72,582,676	0.6%				
Netflix, Inc.		71,866,548	0.6%				
Coca Cola, Co.		69,430,336	0.5%				
JPMorgan Chase & Co.		63,063,195	0.5%				
TOTAL	\$	840,478,433	6.6%				

<sup>\*</sup> Includes only actively managed separate accounts.

The following table displays the top 10 non-U.S. stock holdings as of June 30, 2018.

Non-U.S. Public Equity - Top 10 Holdings						
Top 10 Largest Holdings*			% of Total Non-U.S.			
June 30, 2018		Fair Value	Public Equity			
Nestle SA	\$	59,876,751	0.8%			
Roche Holding AG		57,437,621	0.8%			
AIA Group Ltd.		46,457,566	0.6%			
SAP SE		44,638,007	0.6%			
Hoya Corp.		42,275,778	0.6%			
Samsung Electronics Ltd.		41,512,766	0.6%			
Bayer AG		37,067,070	0.5%			
Tata Consultancy Services Ltd.		36,488,957	0.5%			
Taiwan Semiconductor Manufacturing		34,535,417	0.5%			
Canadian National Railway Co.		34,294,228	0.4%			
TOTAL	\$	434,584,160	5.9%			

<sup>\*</sup> Includes only actively managed separate accounts

A complete list of portfolio holdings is available upon request.

 $A\ complete\ list\ of\ portfolio\ holdings\ is\ available\ upon\ request.$ 

# FINANCIALS

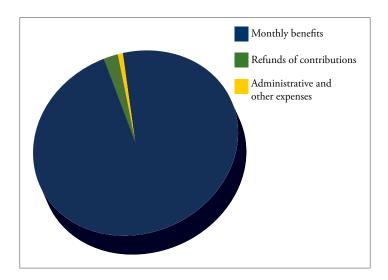


# Fiscal Year 2018 Expenses

#### Expenses for Fiscal Year 2018

The sole purpose of the Retirement Systems is to provide financial benefits to our members and their beneficiaries.

Therefore, it is no surprise that the primary expense incurred by PSRS/PEERS is the payment of monthly benefits to members and beneficiaries.



Benefits Paid in Fiscal Year 2018 (000's)								
Type of Benefit	PSRS		PEERS			Total		
Service Retirement Benefits	\$	2,398,699	\$	253,336	\$	2,652,035		
Disability Benefits		27,235		4,453		31,688		
Beneficiary Payments	\$	129,722	\$	11,575	\$	141,297		
Subtotal Monthly Benefits	\$	2,555,656	\$	269,364	\$	2,825,020		
Refunds to Former Members	\$	51,329	\$	18,270	\$	69,599		

- The largest percentage of the Systems' benefit recipients is service retirees. Monthly service retirement benefits are payable to members who have met age and service requirements.
- Disability benefits are paid to members who are unable to earn a livelihood due to a permanent disability and who have met certain eligibility requirements.
- Beneficiary payments are available to survivors if the retiree elected this option. In PSRS, survivor benefits are also available to designated beneficiaries of members who die before retirement.

Other expenses include the payment of refunds of contributions to former members, and the costs to administer the Systems.

For a detailed look at the Systems' expenses during fiscal year 2018, see the financial statements on page 19.

### Financial Statements

The Statements of Fiduciary Net Position present information on the assets and liabilities of the Systems, with the difference between the two reported as net position. The net position of the Systems reflect the resources available to pay benefits to members when due. Over time, increases and decreases in net position measure whether the Systems' financial position is improving or deteriorating.

Statements of Fiduciary Net Position										
(As of June 30, 2018 with comparative totals for June 30, 2017)						Combined Totals				
		PSRS		PEERS	_	June 30, 2018		June 30, 2017		
ASSETS										
Cash	\$	551,373,788	\$	70,537,724	\$	621,911,512	\$	139,136,493		
Receivables		2,343,681,872		285,811,153		2,629,493,025		2,168,687,740		
Investments, at fair value		38,995,139,576		4,737,756,564		43,732,896,140		41,957,562,377		
Invested securities lending collateral		334,307,687		40,603,008		374,910,695		281,029,026		
Prepaid expenses		43,982		168		44,150		110,800		
Capital assets, net of accumulated depreciation		23,131,284		-		23,131,284		24,004,180		
TOTAL ASSETS		42,247,678,189		5,134,708,617		47,382,386,806		44,570,530,616		
DEFERRED OUTFLOW OF RESOURCES										
Outflows related to other post employment benefit obligations		67,183		31,615		98,798				
LIABILITIES		2,988,141,938		364,939,376		3,353,081,314		2,843,866,545		
DEFERRED INFLOW OF RESOURCES		_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0 - 1,5 0 5 ,0 , 0		0,000,000				
Inflows related to other post employment benefit obligations		58,026		35,564		93,590		-		
NET POSITION - RESTRICTED										
FOR PENSIONS	\$	39,259,545,408	\$	4,769,765,292	\$	44,029,310,700	\$	41,726,664,071		

The Statements of Changes in Fiduciary Net Position show the incoming revenue (additions) and outgoing expenses (deductions) of the Systems throughout the fiscal year.

(For the year ended June 30, 2018 with comparative totals for the year ended June 30, 2017)						<b>Combined Totals Year Ended</b>			
		PSRS		PEERS		June 30, 2018		June 30, 2017	
ADDITIONS									
Employer contributions	\$	696,970,398	\$	115,103,143	\$	812,073,541	\$	796,097,303	
Member contributions		726,996,161		121,467,850		848,464,011		838,072,163	
Net investment income		3,173,731,502		381,523,862		3,555,255,364		4,589,156,592	
Other income		4,416		103		4,519		13,520	
TOTAL ADDITIONS		4,597,702,477		618,094,958		5,215,797,435		6,223,339,584	
DEDUCTIONS									
Monthly benefits		2,555,655,919		269,363,965		2,825,019,884		2,722,291,994	
Refunds of contributions		51,329,094		18,270,143		69,599,237		68,808,500	
Administrative expenses		11,019,274		7,106,135		18,125,409		16,861,562	
Other expenses		398,845		7,431		406,276		13,958	
TOTAL DEDUCTIONS		2,618,403,132		294,747,674		2,913,150,806		2,807,976,020	
NET INCREASE IN NET POSITION		1,979,299,345		323,347,284		2,302,646,629		3,415,363,564	
NET POSITION - RESTRICTED FOR PENSIONS									
Beginning of year		37,280,246,063		4,446,418,008		41,726,664,071		38,311,300,507	
End of year	\$	39,259,545,408	\$	4,769,765,292	\$	44,029,310,700	\$	41,726,664,07	

